Annexure A

Idea Cellular Submissions on TRAI Pre-Consultation Paper

On

Net Neutrality Released on May 30, 2016

Preamble

At the outset, we wish to submit that Idea Cellular supports open internet and open access, and believes that any policy should aim at ushering in "Net Equality", while ensuring adequate opportunities for telecom operators to promote mobile data growth.

In this regard, we suggest that the policy Direction should aim at:

I. **"Internet for All":** Benefits of Internet should be available to all strata of the society, especially the "Unconnected ones". This requires huge efforts and investment by TSPs, OTT players and device companies.

II. **"Freedom to Choose":** This choice should span across content, device and operators.

III. **"Free Access to all Solutions":** Consumers should have the access to the solutions which will make internet affordable such as toll free/sponsored Data.

IV. **"Same Service, Same Rules":** All stake holders should get to operate and offer their services under level playing field conditions no one should be allowed to get any undue advantage. Thus there should be no scope for any segment to prosper at the cost of another due to any policy or regulatory arbitrage

To achieve the above, it is essential that TSPs are enabled to offer flexible and innovative tariff offerings while exercising legitimate traffic management practices.

We would also like to draw the attention of the Authority towards the DoT Committee Report on Net Neutrality released in May 2015 that has already outlined a few core principles of Net Neutrality. We submit that Idea Cellular fully supports the following principles and suggests that the same be adopted as guiding principles while framing the definition of Net Neutrality:

(a) No Blocking,

(b) No Throttling, and

(c) No Paid Prioritization and

(d) Reasonable and Legitimate Traffic Management

Further, Idea Cellular believes that a correct understanding of the concept of Net Neutrality is necessary for proper and unhindered proliferation of Internet. Idea Cellular also believes that the current understanding of this concept varies across stakeholders and thus creates varied opinions / conclusions. In our view, Net Neutrality is a complex issue which needs to be understood in the right context.

In this regard, Idea Cellular would like to highlight some of the major issues relevant for discussion on Net Neutrality for consideration :

A. Stable Voice Revenues are key for the future of Mobile data growth

i. The Indian telecom industry is currently at a critical juncture in its evolution. The sector is gradually metamorphosing from a pure voice market to a mix of both voice and data services. In the last calendar year, while 79 million subscribers joined the voice category, only 51 million new subscribers graduated to the mobile broadband category. Hence, while the country today has more than a billion subscriptions for mobile voice services, the total wireless data subscriptions are lagging behind significantly. Overall wireless subscription is only 311.69 million (end December 2015) with mobile broadband subscriptions at just 136.5 million, resulting in overall low penetration of mobile broadband services at the end of calendar year 2015, probably amongst the lowest in the world.

ii. The beginning of the financial year witnessed key regulatory interventions in the mobile voice segment. Reduction in Interconnect Usage Charges from 20 to 14 paise per minutes, share drop of 20 – 40% in headline tariffs for Roaming Services and a near 75% decrease in SMS ceiling charges on national roaming resulted in a steep decline of estimated 8 – 10% in the voice realization rates. **As a result, despite volume expansion in voice minutes and addition of 79 million new active subscribers in CY15**, **the overall mobile voice segment recorded a near zero growth for the first time in the history of Indian mobility sector, with the threat of registering negative growth in coming years.**

iii. Given the national imperative to rollout a ubiquitous broadband infrastructure in India, ensuring stable voice revenues for TSPs needs to be an absolute imperative for the

Licensor / Regulator, who need to usher in suitable interventions required to stem further decline.

B. <u>Impediment to Stable Voice Revenues and Internet for All – Unlicensed OTT Communication Providers</u>

i. OTT services are welcome in keeping with the spirit of innovation and encouraging entrepreneurship**.** However, with the advent of OTT communication services (by Unlicensed Entities) riding free on data networks of licensed TSPs, the voice business which was absorbing a significant part of the telecom operator costs, will no longer be able to do so. Such communication services significantly compromises TSPs ability to offer affordable data services to lower strata and rural India and thus would be the single biggest reason behind any rise in data tariffs. This data tariff increase would then impact other important applications of internet and would jeopardize the real use of internet and prevent the spread of benefits of Internet to the unconnected population of India.

ii. It is important to prevent such communication applications by non-licensed entities from negatively impacting all other critical and beneficial internet applications, to support creative energy and innovative skills of new entrepreneurs and services arising out of the net.

iii. There is a thus a need to maintain parity between current tariffs for voice services from licensed TSPs and the voice services of non-licensed entities by allowing the telecom operators to charge differential tariff for data traffic for such applications. If the decision is made to have the same data tariff for such voice applications and other data applications, it will result in the current data tariffs increasing from the current levels to the detriment of growth of non-voice data applications and the vision of a "Digital India."

C. <u>Ensure Regulatory Neutrality between TSPs and OTT – Unlicensed OTT Communication Providers</u>

i. Some of the services being provided by OTT Communication players are a perfect substitute of PSTN/Internet Telephony services, but with lower QoS standards than offered by Licensed

Telecom Service Providers (TSPs) in India and violate the basic principle of '**Same Service, Same rules**".

ii. Typically, TSPs are liable and responsible for a plethora of licensing provisions and regulations that include, regulatory levies and license fees, QoS, Tariff Regulations, KYC, confidentiality of customer information, Regulatory Audits, Consumer Protection Regulations, emergency services, privacy of communication and lawful monitoring and interception. These conditions are not imposed on unlicensed OTT players, and the resulting arbitrage allows OTT communication providers to offer Internet Telephony for free or for a greatly reduced price in comparison to TSPs.

iii. Absence of any level playing field with TSPs is thus a source of unfair competitive advantage for OTT players, but this also poses various social and economic risks:

a) Lower consumer protection / data privacy and security approaches which do not reflect national telecom policy;

b) Lower control on internet content which does not reflect national security standards;

c) Business models which depend on "*untaxed"* service revenues reflecting wide freedom available to OTTs to structure their businesses in a manner where it is possible to avoid license fee and general tax payments.

It is thus only appropriate that OTT players offering communication services be brought under a suitable Regulatory framework that results in creation of Regulatory neutrality.

D. **Traffic management is an essential function of networks**

i. We would like to submit that in order to manage the growing volumes of data traffic and meet the performance expectations of the different traffic types translating to better experience for customers, traffic management is of paramount importance. We hope TRAI will recognise the importance of traffic management and service delivery, and the increased need for such practices as networks and services become more complex.

ii. **Regulations that prohibit traffic management or prescribe a limited set of permissible cases are not future-proof, will stop the march of technology and have unintended consequences for innovation, investments and the quality of experience for the users of**

the services. We are of the view that TSPS should be permitted the flexibility to differentiate between different types of traffic to ensure the internet remains open and thriving. Traffic management is essential for optimizing the traffic based on customer requirement and even device usage.

iii. It is important to consider that different type of services need differing treatment. For example voice needs to be given instant priority for excellent experience, video needs to be delivered in packets and superior video compression techniques need to be applied for lowering consumer costs, while the search and social networking applications by design can work in a delayed environment. Also with massive growth in quality of smartphone technology, superior traffic management techniques are being applied on higher end phones along with latest version of browsers powered by global companies like Apple, Google, Microsoft, Nokia etc.

iv. **Thus before defining net neutrality, the Regulator should involve all stakeholders including equipment suppliers, device and chipset manufactures, software companies providing capacity solutions, so that the country can have the fine balance between technology advancement and neutrality principle**.

E. The DoT report on Net Neutrality released in May 2015

DoT in its report on Net Neutrality released in May 2015 has outlined a few core principles of Net Neutrality. **Idea Cellular fully supports the following principles, and suggests that the same be adopted as guiding principles while framing the definition of Net Neutrality:**

(a) No Blocking,
(b) No Throttling, and
(c) No Paid Prioritization and
(d) Reasonable and Legitimate Traffic Management.

F. Current TRAI Pre-consultation – Context Not Clear

i. **As submitted earlier, one of the key enablers in pushing the Indian mobile and voice telephony market to a size of over 1 Billion users has been the clarity in the Regulatory Framework.** TRAI has in the past on various occasions acknowledged the importance of

telecommunications as an essential input to the overall economic activity in the country and taking note of the criticality of Telecommunications to the country's development made a multitude of high impact policy recommendations to the Government. These recommendations have covered the various domains of spectrum management, licensing, Rural Telephony, spread of Broadband, Telecom Infrastructure, Green telecommunications and Telecom equipment manufacturing, to name a few.

ii. It is therefore particularly surprising that the Authority has not been able to firm up its views on the earlier CP on "Regulatory Framework of OTT" even after over a year and has issued this fresh Pre-CP that covers more or less same / similar issues as were covered in that earlier CP. Such a critical Consultation that has not been concluded requires a new and aggressive approach from TRAI.

iii. Idea Cellular therefore strongly suggests that immediate conclusion of the earlier Consultation, that has already gone through the established process of stakeholder comments / counter-comments followed by Open House Discussions, is an absolute imperative at this stage, and is likely to be only meaningful remedy to the overarching issue of Net Neutrality that has a significant role to play in shaping the course of Indian Telecom Industry and the vision of Digital India.

Before we proceed to respond to queries, the Authority may also kindly take note of the following:

I. Vision of Digital India versus the Current Reality:

- The objective of "Digital India" is to provide data connectivity to the entire Indian population at affordable rates, so that they can benefit from data access that supports multiple applications including ecommerce, support of payment systems, education, health service etc. It emphasizes the electronic delivery of services to all citizens as an urgent national priority, with 'Broadband for All' as one of its fundamental pillars. Currently only 136 Mn subscribers are connected through wireless broadband and we have a massive task of connecting 1 Billion Indian spread across 5.50L towns and villages with high speed internet. Providing broadband to all, therefore, will require a significant expansion of service providers' networks, with substantial investments in infrastructure development to cover 5.50 L villages with high speed internet connectivity.

- Further, Government, policy makers, TSPs, ISPs, consumer bodies need to come together to create a robust frame work for connecting 1 Billion Indian with high speed Internet. Government and policy makers need to also assess the fund requirement and create a framework for attracting investment for financially stretched Telecom industry.

- The incumbent operators and Idea Cellular remain committed to drive this transformation. However, considering the target entails bringing over a billion Indians under the digital umbrella, the journey is still long and requires TSPs to make serious, large scale investments in the sector.

II. Indian Telecom – Critical Success Factors:

- Indian telecom currently has over a Billion consumers connected on voice telephony, a revolution that has been made possible by a very competitive industry that has built large scale telecom networks through innovative business models, supported by clarity in regulatory framework, large investments by TSPs, ability to attract investment, amongst others.

- The Authority, in pursuance of achieving the objectives of ensuring growth of industry and protecting interest of consumers has made several Recommendations either suo moto or on matters referred to it by the Government. By discharging various recommendatory & regulatory functions, the Authority has contributed to growth of telecom services in terms of increased number of consumers and a vast network providing telecom services across the length and breadth of the country. These continued measures have also resulted in overall benefits to the consumer in terms of choice of services, better quality of service, etc.

- It is critical that the Authority continues to allow multiple options for reaching and serving the customers, provide adequate opportunities for trials of products, so that customers can start using the products. Such flexible approach was allowed by Authority earlier in case of voice telephony – local calls were aided by multiple VAS products, roaming, SMS etc. Same principles need to be applied for data growth too.

III. Challenges before the Telecom Industry for enhancing Data uptake

- **Unlike in voice services, the benefits of which could be much easily understood by the masses, propelling a billion Indians onto data services is going to be a different challenge altogether**. This is because mobile voice services ecosystem was simple – involving a direct relationship between mobile operator and consumer. Further, the adoption of mobile voice services was driven by an innate human need to stay connected. **However, the mobile data services ecosystem is much more complex, and involves a variety of participants including smartphone manufactures and distributors, digital service providers, entailing the process of conversion of all physical activities into digital interactions.**

- Further, the transition from a pure voice network to a data centric network is also not going to be smooth. Introduction of mobile data services in higher frequency band, toggling between 2G, 3G and 4G networks, issues pertaining to handover in networks, and the additional and varying pressures that the powerful smartphones exert on telecom operators' networks are some indicative examples of areas which can cause consumer pain and will require patience as operators work hard towards delivering consistent high quality experience.

- **In that context, the proliferation of unregulated VoIP/Internet Telephony at a massive scale is causing significant disruption in the existing voice business of TSPs and has the potential to dent TSPs capability to invest in infrastructure.** Such a situation can seriously jeopardize the national objectives of bringing affordable and ubiquitous telephony and broadband access to masses across the nation. Further, besides impacting the health of TSPs, such an arrangement is also causing significant loss of revenues for the Exchequer. Unregulated VOIP is also a big threat to national security as it does not comply with appropriate KYC norms and various security norms.

- **In view of the above, it is only appropriate that OTT players offering communication services be brought under a suitable Regulatory framework that results in creation of Regulatory neutrality.**

In the light of points mentioned above, our comments on the queries raised by TRAI are as follows:

Query wise Response:

Q 1. ***What should be regarded as the core principles of net neutrality in the Indian context? What are the key issues that are required to be considered so that the principles of net neutrality are ensured?***

Idea Response:

i. **Given the national imperative to rollout a ubiquitous broadband infrastructure in India, any definition of Net Neutrality needs to thus keep the following issues in consideration:**

   a. **Ensure stable voice revenues for TSPs to stem further decline**
   b. **Maintain parity between current tariffs for voice services and VOIP services (by non-licensed OTT Communication providers) by allowing the telecom operators to charge differential tariff for data traffic for such applications.**
   c. **Ensure Regulatory Neutrality i.e. "Same Service, Same Rules" so that there is a level playing field for all the players that exist in the eco-system**
   d. **Forbearance in tariff must continue to attract investments into telecom sector**
   e. **Should promote:**
      i. **"Internet for All"**
      ii. **"Freedom to Choose"**.
      iii. **"Free Access to all Solutions"**
      iv. **"Same Service, Same Rules"**
   f. **Reasonable and Legitimate Traffic Management**

ii. As stated before, DoT in its report on Net Neutrality released in May 2015 has outlined a suggestive list of core principles of Net Neutrality. **Idea Cellular fully supports (a) No Blocking, (b) No Throttling, and (c) No Paid Prioritization and (d) Reasonable and Legitimate Traffic Management, from the afore-mentioned list of core principles of Net Neutrality, and suggests that these principles be adopted as guiding principles while framing the definition of Net Neutrality.**

iii. Further, Idea Cellular believes that a correct understanding of the concept of Net Neutrality is necessary for proper and unhindered proliferation of Internet. Idea Cellular also believes that the current understanding of this concept varies across stakeholders and thus creates varied

opinions / conclusions. In our view, Net Neutrality is a complex issue which needs to be understood in the right context.

iv. In that context, the TRAI needs to remember that the Indian telecom industry is currently at a critical juncture in its evolution. The sector is gradually metamorphosing from a pure voice market to a mix of both voice and data services. In the last calendar year, while 79 million subscribers joined the voice category, only 51 million new subscribers graduated to the mobile broadband category. Hence, while the country today has more than a billion subscriptions for mobile voice services, the total wireless data subscriptions are lagging behind significantly. Overall wireless subscription is only 311.69 million (end December 2015) with mobile broadband subscriptions at just 136.5 million, resulting in overall low penetration of mobile broadband services at the end of calendar year 2015, probably amongst the lowest in the world.

v. Further, the last financial year witnessed key regulatory interventions in the mobile voice segment. Reduction in Interconnect Usage Charges from 20 to 14 paise per minutes, share drop of 20 – 40% in headline tariffs for Roaming Services and a near 75% decrease in SMS ceiling charges on national roaming resulted in a steep decline of estimated 8 – 10% in the voice realization rates. As a result, despite volume expansion in voice minutes and addition of 79 million new active subscribers in CY15, the overall mobile voice segment recorded a near zero growth for the first time in the history of Indian mobility sector, with the threat of registering negative growth in coming years.

vi. With the advent of OTT communication services (by Unlicensed Entities) riding free on data networks of licensed TSPs, the voice business which was absorbing a significant part of the telecom operator costs, will no longer be able to do so. Such communication services significantly compromises TSPs ability to offer affordable data services to lower strata and rural India and thus would be the single biggest reason behind any rise in data tariffs. This data tariff increase would then impact other important applications of internet and would jeopardize the real use of internet and prevent the spread of benefits of Internet to the unconnected population of India. It is important to prevent such communication applications by non-licensed entities from negatively impacting all other critical and beneficial internet applications, to support creative energy and innovative skills of new entrepreneurs and services arising out of the net.

vii. There is a thus a need to maintain parity between current tariffs for voice services from licensed TSPs and the voice services of non-licensed entities by allowing the telecom operators to charge differential tariff for data traffic for such applications. If the decision is made to have the same data tariff for such voice applications and other data applications, it will result in the current data tariffs increasing from the current levels to the detriment of growth of non-voice data applications and the vision of a "Digital India."

viii. Further, in the current context, the TSPs operate in a heavily regulated environment while the OTT service providers offering similar services operate in a completely free operating, 'unregulated' market environment. This is a huge dichotomy that needs to be corrected so that TSPs can compete effectively with OTT providers and also be in a position to continue to invest**. Towards that end, application of the principle of "Same Service, Same Rules" for all communication OTTs on all communication services {voice(local /national/international), messaging and video call services} needs to be an immediate priority**. This would automatically ensure that all the core principles of Net Neutrality including privacy, security and data protection which are of paramount importance, will get extended /applied to the OTT Communication players as well..

ix. Further, The Government /Regulator should look at Net Neutrality, from the holistic framework of Internet Governance and focus efforts on the immediate priority towards providing data connectivity and rolling out broadband networks.**Net Neutrality which relates to access to internet for information and data should not be mixed up with use of internet by OTT applications for voice service.**

x. We would like to submit that in order to manage the growing volumes of data traffic and to meet the performance expectations of the different traffic types translating to better experience for customers, traffic management is of paramount importance. We hope TRAI will recognize the importance of traffic management and service delivery, and the increased need for such practices as networks and services become more complex.

xi. Regulations that prohibit traffic management or prescribe a limited set of permissible cases are not future-proof, will stop the march of technology and have unintended consequences for innovation, investments and the quality of experience for the users of the services. We are of the view that TSPS should be permitted the flexibility to differentiate between different types

of traffic to ensure the internet remains open and thriving. Traffic management is essential for optimizing the traffic based on customer requirement and even device usage

xii. We also support the DoT Committee view that Net Neutrality is a complex issue and has different nuances specific to a country depending on its social, political and economic conditions. The DoT committee has also rightly pointed out that India needs to take a rational approach and initiate action in making an objective policy that is specific to the needs of the country. Thus, Net Neutrality has to be invariably defined in Indian context

xiii. In the Indian Context it needs to be kept in mind that more than 80% of the population still does not have the benefit of broadband coverage and only 12% of the subscribers are availing mobile broadband services.In about 5 years' time, 1 Billion Indians are expected to be connected to the Internet. On an average 1000 MB /month usage, would generate 1000 Peta Byte mobile data traffic which is 12-15 times the current levels. Catering to such a large traffic requires huge capital investments and thus TSPs should be able to attract financial and strategic investors into the telecom sector. To attract such a large investment, the time-tested policies of freedom in pricing and tariff forbearance need to be continued. Controlled and regulated prices will not attract investors and this will severely impact the growth of internet in India. **Thus, in the Indian context, forbearance in tariff must continue to attract investments into telecom sector.**

xiv. Finally, keeping in view the fast evolving and the dynamic nature of the Internet, any definition of Net Neutrality must be reviewed from time to time to take into account the changing regulatory imperatives.

Q 2. ***What are the reasonable traffic management practices that may need to be followed by TSPs while providing Internet access services and in what manner could these be misused? Are there any other current or potential practices in India that may give rise to concerns about net neutrality?***

Idea Response:

i. There is a need to first develop a consensus on the core principles of Net Neutrality. In that context it is pertinent to point out that the core principles mentioned by the DoT Committee Report for Net neutrality recognize the need for reasonable network management practices.

The DoT committee has further recommended that Legitimate traffic management practices may be allowed but should be "tested" against the core principles of Net Neutrality and has accordingly mentioned the general criteria against which these practices can be tested:

ii. **It is submitted that traffic management is a critical requirement of networks to manage the growing volumes of data traffic and to meet the performance expectations of the different traffic types to ensure better experiences for all consumers. It has for long been an important tool in meeting the needs of users of internet services and will become increasingly important with the development of new technologies such as LTE.**

iii. **If all traffic/packets of data, whether video, voice, email or message are treated equally, it implies that the service provider will not be able to distinguish between a video or voice packet, which is more sensitive to delay, and an email or message, which is less sensitive to delay. In practice, this would mean that there would be call drops and videos will buffer, as both the services require higher priority to work effectively, as embedded in telecoms standards on a worldwide basis. Idea Cellular feels that such priorities may be required even for applications such as Education, Tele Medicine, Disaster Management, etc. TSPs need to have the freedom to apply traffic management for giving preferences of mission critical, important and urgent applications such as health, IT services, Issues of National Importance, Emergency applications, etc. over other applications during a natural or a man-made disaster**

iv. It is also a fact that over the last few years, the nature of the content flowing through internet has undergone a dramatic change. While internet traffic was earlier dominated by email and web browsing, we now see a broader range of traffic types including video/music streaming, file transfer protocols, encrypted packets, online gaming, instant messaging and VOIP etc. Some of these services have a high degree of sensitivity to packet delay, error and loss-undesirable consequence of higher levels of network congestion that follow from increasing traffic volumes.

v. It has also been observed that OTT applications if not built with adequate care and without a proper understanding of wireless networks may hog network resources or generate too much signaling traffic that can cause unwanted harm to the functioning of network. It is also possible that such applications may result in barring other users/application used to access the network resource, thus leading to poor user experience. Since currently there are no regulatory mandates for the OTTs and no way to confirm whether a particular OTT application is optimized

for network, TSPs need to have the flexibility to take action to protect their network from such OTTs by taking suitable management measures.

vi. Traffic management, as generally understood, encompasses a range of techniques used by network operators, ISPs to ensure the smooth flow of data traffic across the networks between the end users and content /service providers. Network operators and ISPs use traffic management to minimize the incidence and impacts of congestion, ensuring that as many users as possible get the best online experience possible. Examples of network management practices include:

a. Management of congestion:
b. Blocking spam, malware, denial of service attacks and other security threats to the network or to user devices
c. Ensuring that time sensitive services such as voice, video, online gaming and enterprise services can be delivered in a way which ensures optimal performance of those applications (without calls dropping, buffering videos and time lags in games)
d. Network Performance : Network Management practices
e. Peak Load Management
f. Lawful restrictions directed to be imposed by the Government/ Legal court orders/LEA agencies.
g. Prioritization for communications for emergency and disaster management services

vii. It needs to be appreciated that operators are provided with flexibility to manage the increasing complexities in network arising out of growth in data and limited spectrum availability. With limited spectrum availability and projected growth to 1000 peta bytes of data per month for the country from current low levels of 40 to 50 peta bytes of data per month, the networks require enhanced traffic management systems and it is essential that operators are given freedom to manage such complex situations.

viii. Further, since the capacity in the wireless telecom networks is not unlimited, TSPs should be allowed to apply traffic management and optimization techniques for improvement of customer experience and network yield.

ix. Regulations that prohibit traffic management or prescribe a limited set of permissible cases are not future-proof and will have unintended consequences for innovation, investments and the quality of experience for the users of the services. We are of the view that mobile operators should be permitted the flexibility to differentiate between different types of traffic to ensure the internet remains open and functional.

x. We thus submit that reasonable traffic management practices, as above, and pertaining to situations such as described above, must be permitted to ensure the smooth flow of data traffic across the networks between the end users and content /service providers

Q 3. ***What should be India's policy and/or regulatory approach in dealing with issues relating to net neutrality? Please comment with justifications.***

Idea Response:

i. The immediate priority in India, where 80% of the population has no data connectivity, is for rolling out broadband networks; any policy and/or regulatory approach to net neutrality must thus facilitate the spread of connectivity for all the villages of India as envisaged in the Digital India programme.

ii. Given the national imperative to rollout a ubiquitous broadband infrastructure in India, ensuring stable voice revenues for TSPs needs to be an absolute imperative for the Licensor / Regulator, who need to usher in suitable interventions required to stem further decline.

iii. It is also critical that the Authority continues to allow multiple options for reaching and serving the customers, provide adequate opportunities for trials of products, so that customers can start using the products. Such flexible approach was allowed by Authority earlier in case of voice telephony – local calls were aided by multiple VAS products, roaming, SMS etc. Same principles need to be applied for data growth too.

iv. Regulatory Neutrality, between TSPs and OTT communication players needs to be ensured. For this, the Authority should mandate application of the principle of, "Same services, Same rules". Only under such an environment, the TSPs will get a fair chance to compete with

communication OTTs on similar pricing and terms and no segment would get to prosper at the cost of another due to policy or regulatory arbitrage.

v. The Pre CP has identified (a) reasonableness of traffic management tools that may be adopted by TSPs; (b) unrestricted access to the Internet; (c) transparency and informed choice by users; (d) customer privacy and (e) national security, as the relevant issues that merit a deeper enquiry for the subject of net neutrality. Our detailed comments and suggestions for policy guideline and / or regulatory approach in dealing with issues relating to net neutrality on each of these and a few additional issues are as given below:

a. Reasonable traffic management practices must be permitted to ensure the smooth and unhindered flow of data traffic across the networks between the end users and content /service providers and to ensure better experience for customers; the same must be subject to the core principles of net neutrality.

b. Unrestricted access to the Internet should not be confused with price of access unless such prices are demonstrated to be discriminatory or materially restricting/limiting the choice of customers. Further, it should also not be mixed up with use of internet by OTT applications for voice service.

c. Transparency and informed choice by users are cardinal principles that have been always followed by TSPs. The same practices can be emulated onto the data space as well.

d. The recent regulation prohibiting discriminatory pricing by the TSPs on the basis of content be revisited as it is based as it reflects an extreme view by the Regulator. The TRAI needs to bear in mind here that it is the strategy of offering customized plans and wide choice to the customer that has helped Indian consumers adopt mobile telephony at a fast pace making India one of the fastest growing telecom markets in the World

e. Principles of privacy, security and data protection which are of paramount importance for unhindered spread of internet, need to be extended /applied to the OTT Communication players as well as licensed TSPs. There is thus a need to address the various regulatory imbalances and ensure Regulatory Neutrality, between TSPs and OTT players. For this, the Authority should mandate application of the principle of, “Same services, Same rules”.

f. Principles laid down for Net Neutrality should be made applicable to all components of the internet value chain/ other stakeholders of the internet eco-system as well and not to TSPs alone.

Q 4. ***What precautions must be taken with respect to the activities of TSPs and content providers to ensure that national security interests are preserved? Please comment with justification.***

Idea Response:

i. The National Security and consumer security, safety and privacy are of paramount importance, and should not be compromised at any cost. The security framework has evolved over the years along with the growth and proliferation of telecom services and all the telecom operators provide these services under strict licensing framework, including compliances with the security conditions and service standards.

ii. However, at present, there is a widely differing treatment accorded between TSPs and OTT communication service providers as regards security compliance requirements on similar services.

iii. Some of the critical National Security and other norms, which OTT communication players are in violation of are, as under:

- Lawful interception: *OTT players do not provide live lawful interception in unencrypted & readable format to Indian security agencies.*
- Domestic traffic to stay within India: *OTT players route India traffic (message / voice from one person to another person in India) outside India as they have not placed their server in India.*
- Network to be set up within service area or country: *OTT players have set up their switching network outside India for provision of telecom services to customers located in India.*
- Usage of Higher Encryption Key: *Since OTT players have deployed encryption equipment much higher than this limit (Skype use 256 bit AES encryption) and do not share decryption key, Indian security agencies cannot intercept the communication of Indian citizens/person located in India for lawful purpose.*

- Access to subscriber database: *OTT players do not provide traceable identity/access of their Indian customers to Indian security agencies.*
- Maintenance of CDR/IPDR: As per clause 7.1 and 7.2 of UL (ISP), TSPs are required to maintain CDR/IPDR for internet including internet telephony services for a minimum period of one year. For one year, these companies have to maintain log-in/log-out details of all subscribers for services provided such as internet access, e-mail, internet telephony, etc. *However, OTT players are not required to follow these rules.*
- ISP cannot connect with PSTN/PLMN: *OTT players can terminate their traffic on PSTN/PLMN in India through their connectivity with PSTN at foreign location.*

iv. In this context, it needs to be noted that the biggest security threat is from the select off shore OTT communication service players which are highly capitalized, global monopolies and today control multiple million customers across continents. Thus, typically the mandate of all OTTs providing communication services should be equivalent to that for a TSP. For e.g., maintaining transaction records with identity of subscribers, sharing of protocols with LEAs and LI system provider to decode the communication, or the communication happening with known protocols without any encryption so that the same can be reproduced in case of monitoring. All the transactions and logging should be restricted to operate within India so that the designated security and monitoring agencies can have full access to the customer data.

v. This lack of regulation on communication related application services could lead to serious national security and data privacy implications because they get to bypass the regulatory regime enforced on licensed service providers. Therefore, it is essential to ensure that the principle of "Same service, Same rules" is implemented.

vi. **Government thus needs to evolve a Regulatory framework which addresses following concerns on OTT players:**

a. registration, data retention and support for law enforcement and national security

b. customer data privacy and security;

vii. Further, adequate guidelines for functioning, utilization of services and auditing of e-commerce sites, especially cash handling services sites, should be mandated through regulations to prevent any kind of money laundering.

Q 5. ***What precautions must be taken with respect to the activities of TSPs and content providers to maintain customer privacy? Please comment with justification.***

Idea Response:

i. It is submitted that the TSPs are subject to the licensing terms and Conditions that require them to ensure protection of privacy of communication and user data and comply with strict rules on customer confidentiality, record keeping and destruction. However, no such restrictions are applicable to the OTT players.

ii. The absence of a regulatory framework for OTT communication players not only poses a threat to the privacy of individual users but also makes the transfer of personal information on the Internet liable for misuse. Therefore, there is a need to have a regulatory framework for governing OTT services for protecting the privacy of users.

iii. It is suggested that obligations around privacy must be broad-based and not applicable to TSPs alone– must govern all organizations, businesses or the even government that are privy to user information so as to encourage growth, create a resilient and safe internet, and build consumer confidence and trust.

iv. As submitted above, the Government thus needs to evolve a Regulatory framework which addresses following concerns on OTT players:

- registration, data retention and support for law enforcement and national security
- customer data privacy and security;

Q 6. ***What further issues should be considered for a comprehensive policy framework for defining the relationship between TSPs and OTT content providers?***

Idea Response:

i. We wish to submit that while we acknowledge and support the role of OTT applications for promoting data growth, however, it is pertinent to note that some of the services that are offered by the OTT Communication players such as messaging/instant messaging and VOIP

telephony are perfect substitutes of the services that are being offered by the TSPs under UASL/UL.

ii. According to the present licensing regime, a service such as Internet Telephony is a licensed service permitted only under UAS/ISP or Unified License granted under Section 4 of the Indian Telegraph Act 1885. **Hence, companies offering OTT communication services without holding a telecom license in India essentially violate and circumvent Indian telecom licensing provisions and provide services that are otherwise only permitted under a telecom license.**

iii. Typically, TSPs are liable and responsible for a plethora of licensing provisions and regulations that include, regulatory levies and license fees, QoS, Tariff Regulations, confidentiality of customer information, Regulatory Audits, Consumer Protection Regulations, emergency services, privacy of communication and lawful monitoring and interception. These conditions are not imposed on unlicensed OTT players, and the resulting arbitrage allows OTT providers to offer Internet Telephony for free or for a greatly reduced price in comparison to TSPs.

iv. OTT players, are thus sitting outside Licensing conditions and are not burdened by multiple historic obligations that currently apply to TSPs. Absence of any level playing field with TSPs is a source of competitive advantage for OTT players but this poses social and economic risks:

   a. Lower consumer protection / data privacy and security approaches which do not reflect national telecom policy; .
   b. Lower control on internet content which does not reflect national security standards;
   c. Business models which depend on "*untaxed*" service revenues reflecting wide freedom available to OTTs to structure their businesses in a manner where it is possible to avoid license fee and general tax payments.

v. Thus, clearly allowing the proliferation of unregulated VoIP/Internet Telephony at a massive scale is leading to a significant disruption in the existing voice business of TSPs. The immediate imperative for Government is to facilitate investment in broadband infrastructure. However, Idea Cellular is of the view that TSPs will not be able to invest in expansion of broadband infrastructure if the OTT communication services cannibalize away the revenues from traditional revenue streams. Such a situation would jeopardize the national objectives of bringing affordable and ubiquitous telephony and broadband access to all across the nation.

vi. Further, we should not allow OTT VOIP application to kill other critical and useful applications of Internet such as commerce, education, IT connectivity, browsing, interactive platform etc. If voice revenue continues to get impacted, then operators would be forced to revise tariffs data tariffs and this would raise the price for even basic applications like browsing/ email. Thus TSPs need to be protected from unregulated OTT VOIP so that they continue to offer affordable internet tariffs

vii. It also needs to be noted that such an arrangement is also causing **significant loss of revenues for the Exchequer.** Government thus faces financial and regulatory challenges as global OTT players use opportunities to locate revenues and profits in low tax jurisdictions and seize opportunities for regulatory arbitrage.

viii. There is thus a need to address the various regulatory imbalances and ensure Regulatory Neutrality, between TSPs and OTT players. For this, the Authority should **apply the principle of, "Same services, Same rules".** Only under such an environment, the TSPs will get a fair chance to compete with OTTs on similar pricing and terms.

ix. We would like to hereby highlight some key points that need further discussion:

- ✓ Regulatory Framework for OTT players need to be prescribed.
- ✓ Promulgation of similar regulatory mechanism for all providers including OTT players regarding National Security, public order, decency and morality, protection of privacy, data protection, public safety and disaster management.
- ✓ Analyzing the impact of growth in OTT on the traditional revenue stream of TSPs
- ✓ Discuss whether OTT players offering communication services (voice, messaging and video call services) through applications (resident either in the country or outside) be brought under the licensing regime
- ✓ Discussion on Commercial Negotiations: Similar to the mutual commercial agreements between the DTH infrastructure providers and content providers, TSPs too should have the freedom of commercial negotiation with OTTs who are utilizing the TSPs' network and bandwidth for delivery of its services.
- ✓ Pricing model and options, i.e. bandwidth / time / website access based, to be adopted for the commercial agreement between the TSP and the OTT service provider and the same should be left to the mutual arrangement between them.

- ✓ Security Issues: Security concerns, maintaining data records, logs etc. and ensuring security, safety and privacy of the consumer data as well as their compliance by OTT Communication players needs to be addressed.

x. **Further, Idea Cellular feels that the services being offered by non-communication OTT players should be allowed to mushroom and any impediments in the expansion and growth of such application services should be removed**.

xi. Innovation should be encouraged and India should benefit from high quality IT specialists who want to turn entrepreneurs. It is critical that their cost structure is kept low at this stage. Internet offers plethora of opportunities and India needs development of regional content, applications for diverse geographies, and convergence of developed world applications into usable Indian flavor applications content. TSPs infrastructure, APN can help massive growth in sectors like education, travel, health and pharmacy, rural development, entertainment, E-commerce and tourism etc. and pre-mature licensing would kill the development of this eco system and Indian entrepreneurial spirit.

xii. India has already proven its credential in IT and software development, and in the OTT space also, a lot of India companies are behind the success of US and European OTTs. Hence launching India specific OTTs and promoting and supporting them would be a logical step and a critical step towards achieving vision of Digital India. Indian OTTs are also required, as till date, most of the leading OTTs do not address the needs of Indian masses, primarily rural Indian, e.g. in health, education, energy and agriculture sectors.

xiii. Framework for encouraging OTT Apps in India encompasses all the players in the ecosystem including TSPs, App Providers, Device Manufacturers and content discovery Services etc. We recommend involving all the participants in deciding the final framework for encouraging Indian OTT fairly. Obligations of each of participants of the ecosystem should be defined clearly.

xiv. Thus while, OTT services are welcome in keeping with the spirit of innovation and encouraging entrepreneurship, however those in providing substitutable communication service and in violation of existing laws or matters of common public interest like privacy, national security etc. need to be strictly within the domain of Regulatory framework so as to ensure "Same

Service, Same Rules". Only under such an environment, the TSPs will get a fair chance to compete with OTTs on similar pricing and terms.

xv. Idea Cellular believes that Government needs to evolve a Regulatory framework which ensures level playing field and addresses following concerns on communication OTT players:

- ✓ Registration, data retention and support for law enforcement and national security
- ✓ Customer data privacy and security;
- ✓ Content standards and consumer protection; and
- ✓ Regulatory levies and taxation.

xvi. It needs to be also appreciated that the TSPs have themselves been at the forefront of the introduction of innovative services, technology, quality and affordability to all citizens of India – both rich and poor alike, in a highly competitive and challenging environment.

xvii. Thus, there is a need for regulation for the digital world, which is light-touch, in order to encourage innovation and competition and also be future proof.

Other Relevant Issues:

xviii. The OTTs have no responsibility towards customers QoS and many a times it has been observed that the customers develop a bad perception about the network even though the issue may be with the OTT's application. Such complaints generally get routed to the TSPs Customer Care and they have to bear the cost for servicing such issues even though they are not directly related to them. In view of the same, OTTs should be restricted from using flash message like "check your network connections" or "contact your network operators" for any kind of failure without verifying the actual reason of the failure.

xix. Many OTT players have shown inclination and propensity of qualifying/publishing network quality ranking based on the techniques deployed on servers at their end. These techniques do not have sufficient data to qualify differences between actual network qualities, bad experience due to device issues or customer behavior related issues, etc. Such practices should not be allowed. We feel that only the regulator is in a position to publish such report on a scientific and non-discriminatory basis.

xx. Many browsers and applications force all the traffic of the customer to be routed through an aggregation server hosted by the browser provider before getting routed to actual site. The servers may be picking up important information about customer or inserting information which the consumer may not be aware off. Practices such as Parental control etc. create issues. We feel such practices are against net neutrality and should not be allowed. We feel that such aggregators are misusing the internet pipe without the end user knowing about it and hence such aggregators should surely come under some regulations.

xxi. Finally, we would like to also highlight the following:

Dismal Financial Condition of TSPs warranting calibrated support:

a. Idea Cellular submits that for realizing the vision of Digital India, Innovation and infrastructure have both to be promoted simultaneously and neither can spread without the other.

b. Current licensed network operators are long-term contributors to Indian economy , but are faced with continuing demands for investments to improve their services (in particular, to install broadband, increase network capacity and network quality) and must be able to compete effectively with OTT providers in order to continue to invest.

c. Mobile Internet access in India is primarily driven by about 7-8 service providers (TSPs) in a fiercely competitive market. All these TSPs have made heavy investments in spectrum and are in the process of building large scale broadband infrastructure.

d. During the last one year, the industry has witnessed several major initiatives to promote mobile broadband services in the country. The incumbent operators exponentially expanded their mobile broadband services coverage by scaling up their 3G networks and the country also witnessed wide scale launch of next generation 4G services by top 3 operators, and is gearing itself for the nationwide launch of its newest member. Further, the device ecosystem also improved significantly with increased availability of smartphones in the Rs. 3,000 – Rs. 5,000 price bracket. **Most importantly, the industry went ahead and voluntarily dropped the pricing of mobile data services by a whopping 20% - that too in an environment where the high cost of spectrum and network roll out makes it an expensive proposition to deliver mobile broadband services.**

e. **Given a low growth – high investment environment riddled with all these complexities, there is a need for the Regulator to proactively take steps that reduce the pain of the TSPs through this journey.** The first step towards that is acknowledging the reality. The massive investments made in the sector have been financed through a combination of equity and debt. While telecom sector remains among the highest Foreign Direct Investment sector for the Government of India, and private sector promoters have made heavy equity commitments, the sector is now facing a ballooning net debt of close to Rs. 4 lac crores. Further investments for the growth of the sector will also follow the same pattern of a mix of debt and equity. **From the perspective of any equity investor, it is but natural to expect a commensurate return from the investments being made, which has not been forthcoming so far.**

f. At this juncture, it becomes important to clearly outline the definition of returns. EBITDA margins have long been considered as the benchmark metric for comparing profitability across sectors. However, over the last two - three years, the cost structures and the business models of the Indian telcos have undergone a significant shift. With increasing spends on spectrum acquisition and higher capital expenditure in form of network roll outs, much of the costs have shifted to below EBITDA levels. In such a scenario, ROCE, ROE, Return on Assets and Return on Investment are becoming more relevant metrics to measure profitability for all telecom investors. **Analyzing the Indian telecom industry with this comprehensive lens reveals that the overall industry continues to realize negative returns (as measured on ROCE & ROE), with even the top 3 operators making single digit returns.** Further, globally, the telecom industry stocks comprise 5 - 6% of the overall market valuation in their respective markets. However, the telecom industry's contribution to the aggregate market valuation in India stands at a meagre 1.0 – 1.5%.

g. **The existing environment is slowing down the equity investors' active participation and contribution towards the growth of Indian mobility sector**. **The TRAI's support in form of a joint representation along with the industry to the investor community, especially large domestic and foreign institutional investors and funds, and showing them the vision will help the industry raise the capital required to invest in growth of data services in India**.

As the mobile telecom companies work towards creating a world-class 'Digital Highway' on mobile broadband, the industry needs more enabling Regulations from TRAI along with the following support :-

- ***Enabling the masses to understand the need and relevance of internet in their lives may potentially require innovative practices such as trial packs for data, digital content, new pricing models in form of bundles, etc., and a more liberal framework around net neutrality which accommodates more experimentation may be a key enabler.***

- ***The government and the industry will also need to work together on programmes and campaigns that create digital literacy through educational and training forums and help new users navigate the internet and popular applications.***

- ***An expanded universe of applications, especially around online delivery of key public services and e-governance will also be very helpful.***

- ***To attract the large investment in private sector domain required for realization of the Digital India vision, freedom in tariffing and continued forbearance policy are essential. Controlled and regulated price regime will not attract investors and this will severely impact the growth of internet in India.***

- ***Any policy framed by the government /regulator needs to create an open and enabling Environment for both operators and OTTs to co-exist and grow.***